

PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the modification of the existing traffic signal at the intersection of MD 528 and MD 90 in Worcester County Maryland. MD 528 runs in a North-South direction.

II. INTERSECTION OPERATION

The proposed traffic signal will operate in a NEMA five (5) phase, fully traffic actuated mode with northbound and southbound approaches operating concurrently with a northbound exclusive double left turn phase. The eastbound approach will operate separately.

The existing eight phase fully traffic actuated controller and master controller will be removed. New wiring will be brought into the cabinet.

III. SPECIAL NOTES

- It is the responsibility of the contractor to confirm geometrics prior to placing signal equipment.
- The signal shop will be notified to perform internal wiring of the cabinet at MD 528 & MD 90. All cable shall be identified and brought into the controller by the contractor. The contractor shall notify Mr. Edward Rodenhizer, SHA Signal Shop at (410) 787-7650 seventy-two (72) hours in advance of this work.
- The Maryland State Highway Administration District #1 will be given at least seven (7) days notice to perform striping through the intersection area. Contact Mr. Gene Cofelli at (410) 677 - 4040 to initiate this operation.
- MOT Plates for this project will be as follows: 104.00 to 104.00-12, 104.01-01, 104.02-01, 104.03-01, 104.75
- Upon completion of this project the contractor shall notify Mr. Robert Snyder of SHA at 410-787-7635 to arrange for the phone line installation. The contractor is to provide Mr. Snyder with the nearest street address, zip code, and phone.
- The contractor shall furnish and deliver the video detection control cabinet equipment a minimum of three (3) weeks prior to picking up the signal control cabinet from SHA Signal Shop, 749 Connelley Drive. The contact person is Mr. Ed Rodenhizer for SHA. (410) 787-7650.

THE FOLLOWING CONTACT PERSONS FOR DISTRICT #1 ARE AS FOLLOWS:

Mr. Donnie Drewer
District Engineer
Phone: (410) 677-4006

Mr. James R. Wright
Asst. District Engineer - Maintenance
Phone: (410) 677-4010

Mr. Bruce W. Poole
Engineer-Utility
Phone: (410) 677-4082

Mr. Richard L. Daff
Chief Traffic Operations Division
Phone: (410) 787-7630

Mr. Gene Cofelli
Assistant District Engineer-Traffic
Phone: (410) 677-4040

The Power Company Representative is:

CONNECTIVPOWER
CHRIS SMITH
P.O. BOX 1739
SALISBURY MARYLAND, 21802-1739
(410) 860-6036

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR:

CATEGORY CODE NO.	SPEC. #	QUANTITY	DESCRIPTION
900000	900000	1 EA.	FURNISH NEMA 6 BASE MOUNTED CABINET AND CONTROLLER
900000	900000	1 EA.	FURNISH ASC IIM MASTER CONTROLLER
900000	900000	2 EA.	FURNISH ASC IIS CONTROLLER
900000	900000	1 EA.	MASTER I/O PANEL
900000	900000	1 EA.	TELEMETRY INTERFACE PANEL
900000	900000	1 EA.	MASTER TELEMETRY HARNESS
900000	900000	3 EA.	FURNISH FOUR CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIER SIGNS
900000	813	87.5 S.F.	SHEET ALUMINUM SIGNS
		2 EA.	R3-5(MOD) SIGN 60"x36"
		1 EA.	R3-11(MOD) SIGN 30"x42"
		1 EA.	D3-2 SIGN 96"x16" (DUEL FACED)
		1 EA.	R3-6 SIGN 30"x36"
		1 EA.	ASSOCIATED SHIELD ASSEMBLY *SOUTH, MD 528, RIGHT ARROW* (30" X 51") - POLE MOUNT
		1 EA.	ASSOCIATED SHIELD ASSEMBLY *NORTH, MD 528, LEFT ARROW* (48" X 75") - POLE MOUNT

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR:

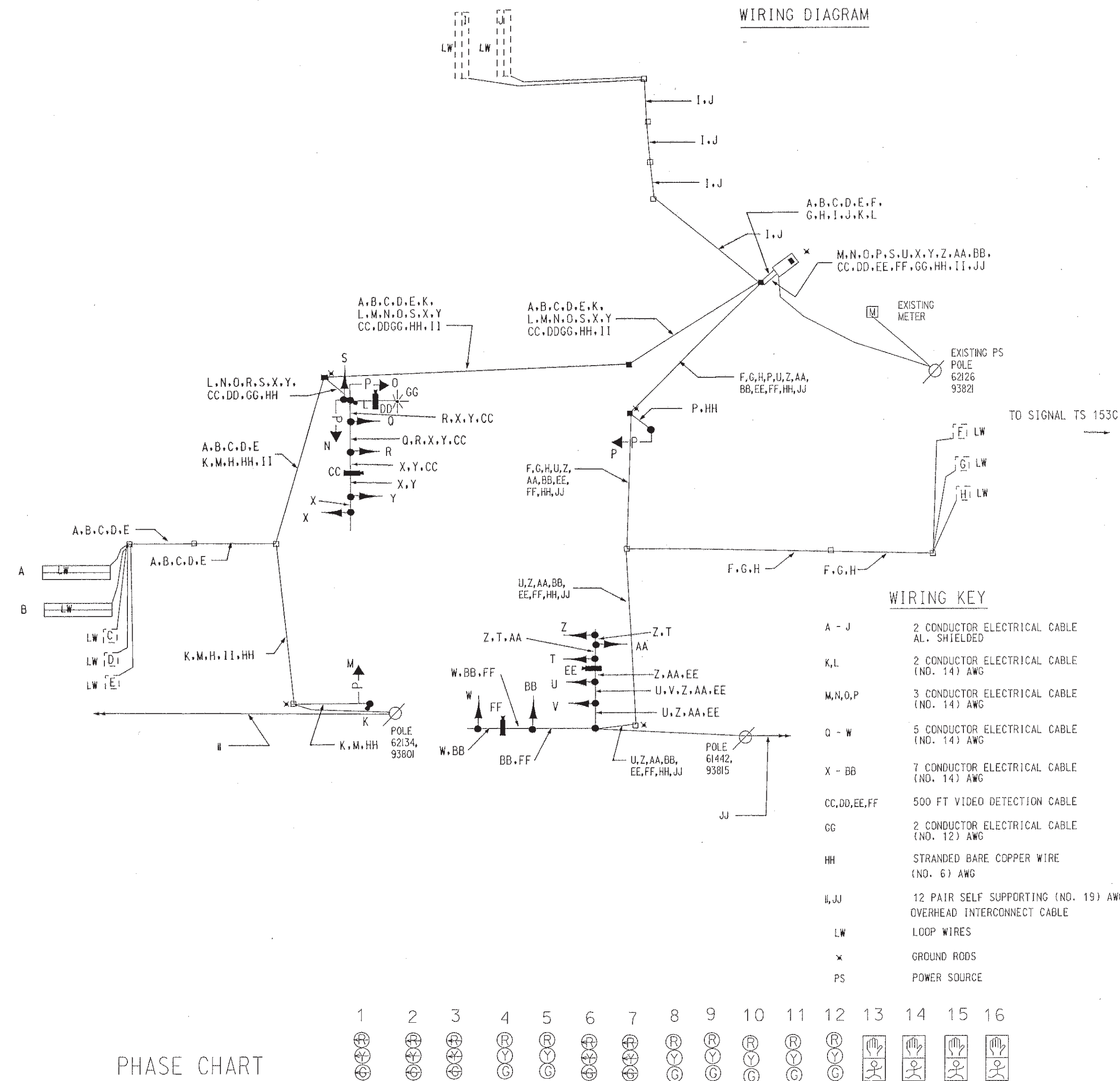
CATEGORY CODE NO.	SPEC. NO.	QUANTITY	DESCRIPTION
120500		L.S.	MAINTENANCE OF TRAFFIC
120685	104	200 L.F.	REMOVAL OF EXISTING PAVEMENT MARKINGS - ANY WIDTH
201032	201	25 C.Y.	CLASS II EXCAVATION
203030	205	4 C.Y.	TEST PIT
585446	SP-556	13 EA.	FURNISH AND INSTALL PERMANENT PREFORMED PAVEMENT MARKING (LETTER)
585448	SP-556	20 EA.	FURNISH AND INSTALL PERMANENT PREFORMED PAVEMENT MARKING (ARROW)
585620	SP-556	70 L.F.	FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (CROSSWALK)
585624	SP-556	35 L.F.	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (STOP LINE)
655104	603	240 S.F.	FURNISH AND INSTALL 4 IN. CONCRETE SIDEWALK
800000		1 EA.	FURNISH AND INSTALL VIDEO FOR DETECTION SYSTEM.
800000		4 EA.	FURNISH AND INSTALL 500 FT VIDEO DETECTION CABLE.
805050	818	2 EA.	FURNISH AND INSTALL 3 IN. WEATHERHEAD.
801004	801	13 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	810	850 L.F.	FURNISH AND INSTALL STRANDARD BARE COPPER GROUND WIRE (NO. 6 AWG)
805026	805	30 L.F.	FURNISH AND INSTALL 3 IN. ELECTRICAL CONDUIT - PVC RISER.
805160	805	10 L.F.	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXABLE NON-METALLIC CONDUIT.
810010	810	50 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG THHN/TW/N
811001	811	3 EA.	FURNISH AND INSTALL ELECTRICAL HANDHOLE.
813014	813	35.5 S.F.	INSTALL GROUND MOUNTED SIGN.
813015	813	52 S.F.	INSTALL OVERHEAD SIGN.
818004	818	2 EA.	FURNISH AND INSTALL 10 FT. BREAKAWAY PEDESTAL POLE.
818050	818	1 EA.	FURNISH AND INSTALL 21 FT STEEL MAST ARM POLE W/ TWIN 50 FT AND 60 FT MAST ARMS
818052	818	1 EA.	FURNISH AND INSTALL 27 FT STEEL MAST ARM POLE W/ 70 FT MAST ARM.
822001	810	3000 L.F.	FURNISH AND INSTALL 12 PAIR COMMUNICATION CABLE -SELF SUPPORTING
831010	806	1 EA.	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
837001	804	5 EA.	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIA. X 10 FT. LENGTH.
838003	807	1 EA.	FURNISH AND INSTALL CONTROL AND DISTRIBUTION (120/240, 1 PHASE 3 WIRE SYSTEM).
860272	814	37 EA.	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION (BLACK FACED)
860278	814	8 EA.	FURNISH AND INSTALL 12 IN. PEDESTRAIN SIGNAL HEAD SECTION POLE MOUNT
861104	810	6200 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (AL SHIELDED)
861105	810	500 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861106	810	800 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
861107	810	750 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 5 AWG)
861108	810	1275 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	810	220 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
862101	810	825 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
862102	810	240 L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
865001	817	2 EA.	FURNISH AND INSTALL PUSH BUTTON AND SIGN.
866104	808	1 EA.	FURNISH AND INSTALL 20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
870163	805	500 L.F.	FURNISH AND INSTALL 3 IN. DIA. PVC ELECTRICAL CONDUIT SCHEDULE 80 - TRENCHED
870166	805	80 L.F.	FURNISH AND INSTALL 4 IN. DIA. PVC ELECTRICAL CONDUIT SCHEDULE 80 - TRENCHED
870168	805	300 L.F.	FURNISH AND INSTALL 4 IN. DIA. PVC ELECTRICAL CONDUIT SCHEDULE 80 - SLOTTED
871202	805	1 EA.	INSTALL CONTROLLER AND CABINET - BASE MOUNTED

C. EQUIPMENT TO BE RETURNED TO SHA BY THE CONTRACTOR:

- SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL REMOVE AND RETURN THE EXISTING VIDEO DETECTION CAMERA'S TO THE SHA SIGNAL SHOP.
- THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.



WIRING DIAGRAM



PHASE 1 & 5	←G	←G	←R	R	R	←G	←G	R	R	R	R	R	DONT WALK	DONT WALK	DONT WALK	DONT WALK
PHASE 1 & 5 CHANGE TO PHASE 1 & 6 OR 2 & 5																
PHASE 1 & 6	←G	←G	←G	G	G	←R	←R	R	R	R	R	R	DONT WALK	DONT WALK	DONT WALK	DONT WALK
PHASE 1 & 6 CHANGE	←Y	←Y	←G	G	G	←R	←R	R	R	R	R	R	DONT WALK	DONT WALK	DONT WALK	DONT WALK
PHASE 2 & 5	←R	←R	←R	R	R	←G	←G	G	G	R	R	R	WALK	WALK	DONT WALK	DONT WALK
PHASE 2 & 5 CHANGE	←R	←R	←R	R	R	←Y	←Y	G	G	R	R	R	WALK	WALK	DONT WALK	DONT WALK
PHASE 2 & 6	←R	←R	←G	G	G	←R	←R	G	G	R	R	R	WALK	WALK	DONT WALK	DONT WALK
PED CLEAR	←R	←R	←G	G	G	←R	←R	G	G	R	R	R	FLSH DT WK	FLSH DT WK	DONT WALK	DONT WALK
PHASE 2 & 6 CHANGE	←R	←R	←Y	Y	Y	←R	←R	Y	Y	R	R	R	FLSH DT WK	FLSH DT WK	DONT WALK	DONT WALK
PHASE 4	←R	←R	←R	R	R	←R	←R	R	R	G	G	G	DONT WALK	DONT WALK	WALK	WALK
PED CLEAR	←R	←R	←R	R	R	←R	←R	R	R	G	G	G	DONT WALK	DONT WALK	FLSH DT WK	FLSH DT WK
PHASE 4 CHANGE	←R	←R	←R	R	R	←R	←R	R	R	Y	Y	Y	DONT WALK	DONT WALK	FLSH DT WK	FLSH DT WK
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	DARK	DARK	DARK	DARK



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 528 (COASTAL HWY.) &
MD 90 (62 ND. ST)
GENERAL INFORMATION

DRAWN BY: M. KAPLAN	F.A.P. NO. HES-0005(43)	TS NO. 1429H	SHEET NO. 19 OF 21
CHECKED BY: NOT NOTED	S.H.A. NO. AW-555-501-176	T.I.M.S. NO.	
SCALE: N.T.S.	COUNTY: WORCESTER		
DATE: JULY 11, 1976	LOG MILE: 23009011.91		